CALIFORNIA
Water Boards

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State Water Resources Control Board
Division of Drinking Water

June 14, 2016

Certified Mail
7012 3460 0003 1112 7949

Linda Freya, Administrator
Point Horizon Institute – Thunder Mountain
P.O. Box 70
Ravendale, CA 96123

TRANSMITTAL OF CITATION NO. 01-02-16(C)-013

Dear Ms. Freya,

The State Water Resources Control Board (Water Board) Division of Drinking Water has issued the Point Horizon Institute a citation, which is attached.

If you have any questions regarding this matter, please contact Katie Connaughton at (530) 224-4870 or me at (530) 224-4800.

Michael J. McNamara, P.E.
Lassen District Engineer
Drinking Water Field Operations Branch

Enclosure

cc: Richard Hinrichs, P.E., Chief – Northern California Section, DDW, Redding

KEC\1800632 Point Horizon Institute\File: Enforcement

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

DIVISION OF DRINKING WATER

TO: Point Horizon Institute
P.O. Box 70
Ravendale, CA 96123

Attn: Linda Freya, Administrator

CITATION FOR VIOLATION OF CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTIONS 64426, 64426.1, and 64430

WATER SYSTEM NO. 18100632

C I T A T I O N NO. 01-02-16(C)013

Issued on June 14, 2016

Section 116650 of the California Health and Safety Code authorizes the issuance of a citation to a public water system for violation of the California Safe Drinking Water Act (Health and Safety Code, Division 104, Part 12, Chapter 4, commencing with Section 116270) (hereinafter "California SDWA"), or any regulation, standard, permit or order issued or adopted thereunder.

The State Water Resources Control Board (hereinafter "Board"), acting by and through its Division of Drinking Water (hereinafter, "Division") and the Deputy Director for the Division (hereinafter, "Deputy Director"), hereby issues a citation to the Point Horizon Institute (hereinafter, "Institute"), located 6 miles South of Ravendale,

Highway 395, for violation of California Code of Regulations (CCR), Title 22, Sections 64426, 64426.1, and 64430.

APPLICABLE AUTHORITIES

Section 116650 of California Health and Safety Code provides:

(a) If the Division determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the Division may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.

(b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.

(c) A citation may specify a date for elimination or correction of the condition constituting the violation.

(d) A citation may include the assessment of a penalty as specified in subdivision (e).

(e) The Division may assess a penalty in an amount not to exceed one thousand dollars ($1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation.

California Code of Regulations, Title 22, Section 64426, subsections (a) and (b), provides in relevant part:

(a) Any of the following criteria shall indicate a possible rise in bacterial count:

(1) A system collecting at least 40 samples per month has a total coliform-positive routine sample followed by two total coliform-positive repeat samples in the repeat sample set;

(2) A system has a sample which is positive for fecal coliform or *E. coli*, or

(3) A system fails the total coliform Maximum Contaminant Level (MCL) as defined in Section 64426.1.

(b) When the coliform levels specified in subsection (a) are reached or exceeded, the water supplier shall:

(1) Contact the Division by the end of the day on which the system is notified of the test result or the system determines that it has exceeded the MCL, unless the notification or determination occurs after the Division office is closed, in which case the supplier shall notify the Division within 24 hours; and

(2) Submit to the Division information on the current status of the physical works and operating procedures which may have caused the elevated bacteriological findings, or any information on community illness suspected of being waterborne. This shall include, but not limited to:

a. Current operating procedures that are or could potentially be related to the increase in bacterial count;

b. Any interruptions in the treatment process;

c. System pressure loss to less than 5 psi;

d. Vandalism and/or unauthorized access to facilities;

e. Physical evidence indicating bacteriological contamination of facilities;

f. Analytical results of any additional samples collected, including source samples;

g. Community illness suspected of being waterborne; and

h. Records of the investigation and any action taken.

California Code of Regulations, Title 22, Section 64426.1, subsection (b) provides, in relevant part:

(b) A public water system is in violation of the total coliform MCL [maximum contaminant level] when any of the following occurs:

(1) For a public water system which collects at least 40 samples per month, more than 5.0 percent of the samples collected during any month are total coliform-positive; or

(2) For a public water system which collects fewer than 40 samples per month, more than one sample collected during any month is total coliform-positive; or

(3) Any repeat sample is fecal coliform-positive or E. coli-positive; or

(4) Any repeat sample following a fecal coliform-positive or E. coli-positive routine sample is total coliform-positive.

California Code of Regulations, Title 22, Section 64430, provides, in relevant part:

A public water system that uses ground water shall comply with the following provisions of 40 Code of Federal Regulations as they appear in the Groundwater Rule published in 71 Federal Register 65574 (November 8, 2006) and amended in 71 Federal Register 67427 (November 21, 2006) and 74 Federal Register 30953 (June 29, 2009).

Section 141.402. (a) *Triggered source water monitoring-*

(1) *General requirements.* A ground water system must conduct triggered source water monitoring if the conditions identified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section exist.

(ii) The system is notified that a sample collected under 22 California Code of Regulations sections 64422 and 64423 is total coliform-positive and the sample is not invalidated under 22 California Code of Regulations section 64425.

(2) *Sampling requirements.* A ground water system must collect, within 24 hours of notification of the total coliform-positive sample, at least one ground water source sample from each ground water source in use at the time the total coliform-positive sample water collected under 22 California Code of Regulations sections 64422 and 64423, except as provided in paragraph (a)(2)(ii) of this section.

(h) *Monitoring violations.* Failure to meet the requirements of paragraphs (a)-(f) of this section is a monitoring violation and requires the groundwater system to provide public notification under Section 141.204.

STATEMENT OF FACTS

The Point Horizon Institute operates a transient non-community water system for a retreat style facility. The guest population ranges from 0 to 104 and the population of Institute staff ranges from 6 to 16 staff throughout the year. The water system is currently served by a single well (Well 01). Disinfection of the water supply is not provided.

On May 6, 2016, one routine bacteriological sample was collected from the "Main Lodge Kitchen Hand Sink". The Division was notified, by the Institute, on Thursday,

May 12, 2016, that the routine sample showed the presence of total coliform bacteria. The Institute collected a repeat sample from the "Main Lodge Kitchen Hand Sink" on May 11, 2016, after notification from the laboratory on May 10, 2016 that the routine sample was total coliform-positive. Two additional repeat samples were collected on May 12, 2016 from the "building S3 bathroom hand sink" and the "Mountain Lion Lodge". These samples were negative for total coliform bacteria. The Institute did not collect a repeat sample from the Well 01 source, in accordance with the Bacteriological Sample Siting Plan, dated June 30, 2015.

On June 1, 2016, the Institute collected three bacteriological samples at the following locations: "Main Lodge Kitchen Hand Sink", "Mountain Lion Lodge bathroom", and Office Kitchen sink". Two of these sample sites, "Main Lodge Kitchen Hand sink" and the "S3 bathroom sink" showed the presence of total coliform bacteria. On June 3, 2016, the Institute collected five additional samples at the following locations: "Main Lodge Hand sink", "Office Kitchen sink", "S3 Bathroom sink", "Mountain Lion Lodge bathroom", and "S6-close to well" (source). The "S3 Bathroom sink" site showed the presence of total coliform bacteria, and the four additional samples were absent of total coliform bacteria. The Institute was directed by email to conduct an assessment of the water system and continue subsequent testing until the problem is corrected.

DETERMINATION

The Division has determined that the Institute violated Sections 64426.1, and 64430, Title 22 of the CCR. Specifically, the Institute exceeded the total coliform MCL during the month of June 2016.

DIRECTIVES

Point Horizon Institute is hereby directed to take the following actions:

1. Comply with Sections 64426.1, and 64430, Title 22, of the CCR in all future monitoring periods.
2. Identify a possible cause to the total coliform positive samples and describe corrective actions taken or needed. The completed assessment must be submitted to the local regulating agency (DDW District Office) by **no later than July 1, 2016**. Completing and submitting Attachment 'C' (Site Assessment Form) fulfills this directive.
3. Within 30 days of the issuance of this Citation, but in no case later than **July 15, 2016**, notify all persons served at the Institute of the MCL violation as required by Section 64463.4 and Section 64465, Title 22, of the CCR. Notification shall be completed by posting the notice contained in Attachment 'A' in conspicuous places within the service area. Changes and/or modifications to Attachment 'A' shall not be made unless approved by the Division.
4. Complete and return Attachment 'B' entitled "Compliance Certification" by **August 1, 2016**. A copy of the notice used to provide public notification shall be attached to the form.

All documents required by this Citation shall be submitted to the Division to the following address:

Michael J. McNamara, P. E.
Lassen District Engineer
State Water Resources Control Board
Division of Drinking Water
364 Knollcrest Drive, Suite 101
Redding, CA 96002
(530) 224-4800

Nothing in this Citation relieves Point Horizon Institute of its obligation to meet the requirements of Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), or any regulation, permit, standard or order issued or adopted thereunder.

The Division reserves the right to make such modifications to this Citation, as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Citation and shall be effective upon issuance.

PARTIES BOUND

This Citation shall apply to and be binding upon Point Horizon Institute, its officers, directors, shareholders, agents, employees, contractors, successors, and assignees.

SEVERABILITY

The Directives of this Citation are severable, and Point Horizon Institute shall comply with each and every provision thereof, notwithstanding the effectiveness of any other provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the Board to: issue a citation with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any permit, regulation, or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the Board to take action to suspend or revoke a permit that has been issued to a public water system if the system has violated applicable law or regulations or has failed to comply with an order of the Board; and to petition the superior court to take various

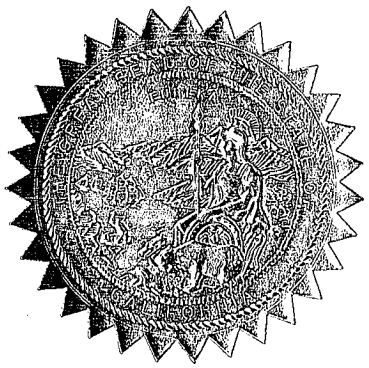
enforcement measures against a public water system that has failed to comply with an order of the Board. The Board does not waive any further enforcement action by issuance of this citation.

June 14, 2016
Date

Michael J. McNamara, Lassen District Engineer
Northern California Section
Division of Drinking Water
State Water Resources Control Board

Attachments:

'A' Public Notification: *Important Information About Your Drinking Water*
'B' Compliance Certification Form
'C' Site Assessment Form (5 pages)



Attachment A

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

Tests Showed Coliform Bacteria in the Point Horizon Institute Domestic Water System

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we did to correct this situation.

We routinely monitor for drinking water contaminants. On May 6, 2016, the Institute collected one routine sample that showed the presence of coliform bacteria. On May 11, 2016, the Institute collected a sample from the same location that was absent for total coliform bacteria, and two samples from the distribution system on May 12, 2016 that were also absent of total coliform bacteria. The Institute was also required to collect a sample from the well source. The Institute failed to collect the source water sample.

On June 1, 2016, the Institute collected four follow-up samples from the distribution system, two of which showed the presence of total coliform bacteria. The standard is that no more than one sample per month may show the presence of total coliform bacteria. On June 3, 2016, four repeat samples were collected from the distribution system, and from the source water well. One of the samples from the distribution system, again showed the presence of total coliform bacteria.

What should I do?

You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1(800) 426-4791.

What does this mean?

This is not an emergency. If it were, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves. *Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.* Usually, coliforms are a sign that there could be a problem with the system's water source or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. *E. coli* was not present in any of the samples.

What happened? What was done?

The source of the coliform bacteria in the distribution system, from water supplied by Well 01, has not been determined. Water will continue to be supplied from the Well 01 source, which is absent for total coliform bacteria. Point Horizon Institute is required to conduct an assessment of the water system to identify the possible cause of the total coliform positive samples, take corrective action if needed, and continue subsequent testing until the problem is resolved.

For more information, please contact Linda Freya at (415) 937-0382 or P.O. Box 70, Ravendale, CA 96123.

This notice is being provided to you by Point Horizon Institute in compliance with the California Domestic Water Quality and Monitoring Regulations as a means of keeping the public informed.

Attachment B

CERTIFICATION OF COMPLETION OF PUBLIC NOTIFICATION

This form, when completed and returned to the State Water Resources Control Board Division of Drinking Water (364 Knollcrest Drive, Suite 101, Redding, CA 96002), serves as certification that public notification to water users was completed as required by the California Water Quality and Monitoring Regulations. Completing public notification and providing the Division of Drinking Water with certification is important. Failure to do so will result in additional hourly time charges to your water utility and may result in a formal enforcement action with monetary penalties.

Public Water System Name Point Horizon Institute

Public Water System No. 1800632

Public notification for the June 2016 bacteriological failures was performed by the following method(s) (check and complete those that apply):

_____The notice was published in the local newspaper on _____.
A copy of the newspaper notice is attached.

_____The notice was mailed to users on _____.
A copy of the notice is attached.

_____The notice was hand delivered to water customers on _____.
A copy of the notice is attached.

_____The attached notice was posted in the following conspicuous places:

_____

_____

_____

For this method, provide the date (or dates) that the notice was posted _____.

I hereby certify that the above information is factual.

_____
Printed Name

_____
Signature

_____
Date

Attachment C - REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT
Simple Systems with a Well and Storage/Pressure Tank and No Treatment

This form is intended to assist public water systems in completing the investigation required by the federal revised Total Coliform Rule (rTCR) [effective April 1, 2016] and may be modified to take into account conditions unique to the water system. **To avoid a violation, an assessment report must be completed and returned to your local regulatory agency no later than 30 days after the trigger date.**

ADMINISTRATIVE INFORMATION

Entity Name: PWSID NUMBER: System Type:	Name	System Address & Email	Telephone Number
Operator in Responsible Charge (ORC)			
Person that collected TC samples if different than ORC			
System Owner			
Certified Laboratory for Microbiological Analyses			
Date Investigation Completed:			
Month(s) of Coliform Treatment Technique Trigger:			

INVESTIGATION DETAILS

SOURCE	WELL (name)	WELL (name)	WELL (name)	WELL (name)	COMMENTS (attach additional pages if needed)
1. Inspect each well head for physical defects and report					
a. Is raw water sample tap upstream from point of disinfection?					
b. Is wellhead vent pipe screened?					
c. Is wellhead seal watertight?					
d. Is well head located in pit or is any piping from the wellhead submerged?					
e. Does the ground surface slope towards well head?					
f. Is there evidence of standing water near the wellhead?					
g. Are there any connections to the raw water piping that could be cross connections? (describe all connections in comments)					
h. Is the wellhead secured to prevent unauthorized access?					
i. How often do you take a raw water total coliform (TC) test?					
j. Provide the date and result of the last TC test at this location					

STORAGE	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
1. Is each tank locked to prevent unauthorized access?					
2. Are all vents of each tank screened down-turned to prevent dust and dirt from entering the tank?					
3. Is the overflow on each tank screened?					
4. Are there any unsealed openings in the tank such as access doors, water level indicators hatches, etc.?					

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

STORAGE	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
5. Is the roof/cover of the tank sealed and free of any leaks?					
6. Is the tank above ground or buried?					
a. If buried or partially buried, are there provisions to direct surface water away from the site.					
b. Has the interior of the tank been inspected to identify any sanitary defects, such as root intrusion?					
7. Does the tank "float" on the distribution system or are there separate inlet and outlet lines?					
8. What is the **measured** chlorine residual (total/free) of the water exiting the storage tank **today**?					
9. What is the volume of the storage tank in gallons?					
10. Is the tank baffled?					
11. Prior to the TC+ or EC+, what was the previous date item #1-6 were checked and documented?					

PRESSURE TANK	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
1. What is the volume of the pressure tank?					
2. What is the age of the pressure tank?					
3. Is the pressure tank bladder type or air compressor type?					
4. Did the pressure tank(s) deviate from normal operating pressure?					
5. Is the compressor pump running more often than normal?					
6. Is the tank bladder broken and the tank water logged?					
7. Is the tank(s) damaged, rusty, leaking, or has holes?					
8. Was there any recent work performed?					
9. Is the air relief vent (if there is one) on the pressure tank screened and facing downwards?					
10. Can the inside of the pressure tank be visually inspected thru an inspection port? If so, when was the last time it was inspected?					

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
1. What is the minimum pressure you are maintaining in the distribution system?	
2. Did pressure in the distribution system drop to less than 5 psi prior to experiencing the total coliform positive finding?	
3. Has the distribution system been worked on within the last week? (service taps, hydrant flushing, main breaks, main extensions, etc.) If yes, provide details.	

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
4. Are there any signs of excavations near your distribution system not under the direct control of your maintenance staff?	
5. Did you inspect your distribution system to check for mainline leaks? Do you or did you have a mainline leak?	
6. If there was a mainline leak, when was it repaired?	
7. On what date was the distribution system last flushed?	
8. Is there a written flushing procedure you can provide for our review?	
9 Do you have an active cross connection control program?	
10. What is name and phone number of your Cross-Connection Control Program Coordinator?	
11. Have all backflow prevention devices in the distribution system been tested annually and repaired/replaced if they did not pass and retested afterwards?	
12. On what date was the last physical survey of the system done to identify cross-connections?	

SAMPLE SITE EVALUATION (Complete for all TC+ or EC+ findings)	Routine Site TC+ or EC+	Upstream Site	Downstream Site	4th Repeat Sample (specify)
1. What is the height of the sample tap above grade? (inches)				
2. Is the sample tap located in an exterior location or is it protected by an enclosure?				
3. Is the sample tap threaded, have a swing arm (kitchen sink) or aerator (sinks)?				
4. Is the sample tap in good condition, free of leaks around the stem or packing?				
5. Can the sample tap be adjusted to the point where a good laminar flow can be achieved without excessive splash?				
6. Is the sample tap and area around the sample tap clean and dry (free of animal droppings. other contaminants or spray irrigation systems)				
7 Is the area around the sample tap free of excessive vegetation or other impediments to sample collection?				
8. Describe how the tap was treated in preparation for sample collection (ran water, swabbed with disinfectant, flamed, etc.)				
9. Is this sample tap designated on the bacteriological sample siting plan (BSSP) as a routine or repeat site?				
10. Were the samples delivered to the laboratory in a cooler and within the allowable holding time?				
11. What were the weather conditions at the time of the positive sample (rainy, windy, sunny)?				

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

GENERAL OPERATIONS:	Response
1. Has the sampler(s) who collected the samples received training on proper sampling techniques? If yes, please indicate date of last training.	
2. Does the water system have a written sampling procedure and was it followed?	
3. Where there any power outages that affected water system facilities during the 30 days prior to the TC+ or EC + findings?	
4. Were there any main breaks, water outages, or low pressure reported in the service area from which TC+ or EC+ samples were collected?	
5. Does the system have backup power or elevated storage?	
6. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	
7. What were the symptoms of illness if you received complaints about customers being sick?	

SUMMARY: Based on the results of your assessment and any other available information, what deficiencies do you believe to have caused the positive total coliform sample(s) within your distribution system? *(DO NOT LEAVE BLANK)*

Deficiency #	Deficiency Description
1.	
2.	
3.	
4.	
5.	

CORRECTIVE ACTIONS: What actions have you taken to correct the above mentioned deficiencies? If additional time is needed to correct a deficiency, indicate the date that it will be corrected. *(DO NOT LEAVE BLANK)*

Deficiency #	Corrective Action	Completion/Proposed Date
1.		
2.		
3.		
4.		
5.		

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

CERTIFICATION: I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

NAME:_____ **TITLE:**_____ **DATE:** _____

Upon review of the Level 1 Assessment Form, the local regulatory agency may require submittal of the following additional information:

- Sketch of system showing all sources, all treatment and chlorination locations, storage tanks, microbiological sampling sites and general layout of the distribution system including the location of all hazardous connections such as the wastewater treatment facility.
- A set of photographs of the source, pressure tanks, and storage tanks in the system may be submitted if they would show that the contamination is directly related and changes have been made since the last inspection by the local regulatory agency.
- Name, certification level and certificate number of the Operator in Responsible Charge.
- Copy of the last cross connection survey performed that identifies the location of all unprotected cross connections.